



NASA Weekly Update

Week of July 31 – August 7, 2006

NASA's Space Shuttle Atlantis Moves to Launch Pad: The Space Shuttle Atlantis arrived at its launch pad at NASA's Kennedy Space Center, Fla., at 8:54 a.m. EDT Wednesday on top of a giant vehicle known as the crawler transporter. While at the pad, the



Fog on Launch Pad 39B is pierced by lights as the Space Shuttle Atlantis approaches.

shuttle will undergo final testing, payload installation and a "hot fire" test of auxiliary power units to ensure proper function. When testing is completed, the rotating service structure will be moved around the vehicle to protect it from the elements.

8-3: Space Station Crew Chats With FC Barcelona Soccer Team: The International Space Station crew will take a special call at 4:10 p.m. EDT, Tuesday, Aug. 8, from members of the European champion soccer team, FC Barcelona. During a visit to NASA's Johnson Space Center, Houston, the team will stop in Mission

Control to make the call. NASA TV will broadcast the event live.

8-3: Station Crew to 'Kick It Up a Notch' With Chef Emeril Lagasse: The crew of the International Space Station will indulge next week in the ultimate "take-out" food, a meal delivered by a NASA space shuttle and designed by chef Emeril Lagasse of the Food Network's "Emeril Live." After tasting several of Lagasse's creations, the three-person crew will talk to the chef at 1:30 p.m. EDT Aug. 10 in a special hookup carried live on NASA TV.

7-31: NASA Selects Teams for Space Weather Mission and Studies: Four university teams will share \$100 million to provide experiments and supporting hardware for a future NASA mission to study near-Earth space radiation. This type of radiation is hazardous to astronauts, orbiting satellites and aircraft flying high altitude polar routes. For more information on NASA's Living with a Star Geospace Program, visit: <http://www.lws.nasa.gov/geospace>.

Weekly Status Reports



Space station crewmen Jeff Williams and Thomas Reiter worked quickly through scheduled spacewalk tasks Thursday, then completed three extra tasks, and were ready for more. Mission Control assigned two more jobs, which the astronauts also completed.

Williams and Reiter wrapped up their 5-hour, 54-minute excursion and began repressurizing the Quest airlock at 3:58 p.m. EDT. It was the first time in more than three years a third crewmember had been available for those tasks on the orbiting laboratory.

Williams, designated lead spacewalker wore the U.S. spacesuit with red stripes. Reiter, EV2, wore the all-white suit. (cont. on page 2)

Astronaut Steve Bowen acted as spacewalk intravehicular officer and coached the astronauts from the International Space Station Flight Control Room in Houston's Mission Control Center. First, they installed a device that measures the electrical potential of the station so procedures can be devised to minimize arcing hazards as the station grows.

Their second job was to install two containers for the Materials on International Space Station Experiment. The suitcase-like containers are left open to evaluate the long-term effects of space exposure on a variety of materials.



Atlantis (OV-104)

Mission: STS-115 - 19th International Space Station Flight (12A) - P3/P4 Truss Segment and Solar Arrays

Location: Launch Pad 39B

Launch Date: No earlier than Aug. 27, 2006

Launch Pad: 39B

Crew: Jett, Ferguson, Tanner, Burbank, MacLean and Stefanyshyn-Piper Inclination/Orbit Altitude: 51.6 degrees/122 nautical miles

Early on Wednesday, Space Shuttle Atlantis rolled from high bay 3 in the Vehicle Assembly Building to Launch Pad 39B. Early Thursday, the orbiter's auxiliary power units were successfully test fired. Also on Thursday morning, the rotating service structure was moved to the mate position and is now surrounding the orbiter as it sits on the mobile launch platform. Functional tests and checkout of the shuttle and pad systems are under way.

Discovery (OV-103)

Mission: STS-116 - 20th International Space Station Flight (12A.1) - P5 Truss Segment

Vehicle: Discovery (OV-103)

Location: Orbiter Processing Facility Bay 3 Launch

Date: No earlier than Dec. 14, 2006 Launch Pad: 39B

Crew: Polansky, Oefelein, Curbeam, Higginbotham, Patrick and Fuglesang

Inclination/Orbit Altitude: 51.6 degrees/122 nautical miles

Processing of Discovery for its next mission, STS-116, continues in Orbiter Processing Facility bay 3. Following discovery of a leak, fuel cell no. 2 was removed and replaced. Work is under way to remove

and replace the L5L vernier thruster, located on the portside orbital maneuvering system pod, following a thruster heater malfunction during the STS-121 mission.

Endeavour (OV-105)

Powered-up system testing continues on Endeavour in Orbiter Processing Facility bay 2 following an extensive modification period. Workers performed brake leak checks, main propulsion actuator leak checks and environmental control life support system rotary equipment checks this week.



Mission: STEREO (Solar Terrestrial Relations Observatory)

Launch Pad: 17-B, Cape Canaveral Air Force Station

Launch Vehicle: Boeing Delta II

Launch Date: No earlier than Aug. 20, 2006

Launch Time: 3:52 - 4:07 p.m. EDT

At the Astrotech Space Operations Facility, work to prepare STEREO for launch resumed today with the pressurization of the hydrazine tanks on each of the two observatories. This will be followed by preparations to stack the spacecraft. Stacking is currently planned for Friday, July 28. Three days of spin-testing will follow beginning Sunday, July 30. The final major processing activity prior to launch occurs next week with the mating of STEREO to the upper stage booster. At Pad 17-B, standard liquid oxygen leak checks of the Delta II first stage are under way today. The second stage will undergo a helium leak check on Wednesday. For previous expendable launch vehicle processing status reports, visit:

<http://www.nasa.gov/centers/kennedy/launchingrockets/status/2006>.



- **Aug 11:** STS-115 Media Briefings -- NASA TV Coverage starts at 9AM EDT
- **NET Aug 27:** Space Shuttle Atlantis STS-115 mission
- **NET Aug 31:** STEREO launch

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